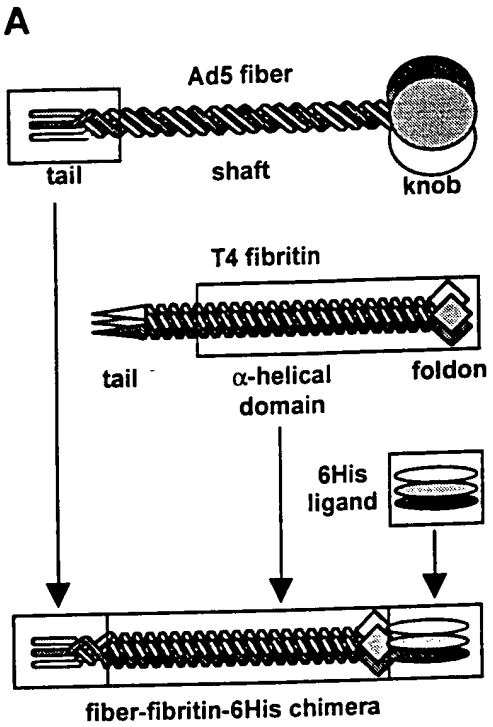

A
Ad5 fiber
tail
shaft
knob
T4 fibritin
tail
α-helical domain
foldon
6His ligand
fiber-fibritin-6His chimera

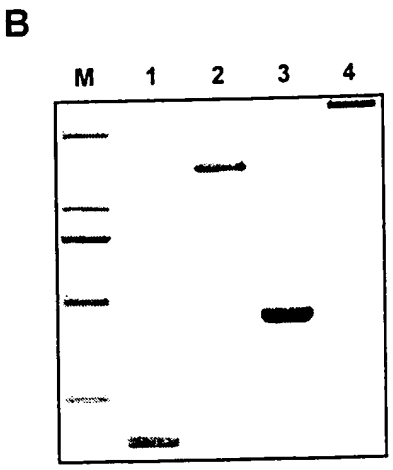

B
M
1
2
3
4

Fig. 1

fiber tail

MKRARPSEDTFNPVYPYDTETGPPTVPFLTPPFVSPNGFQESPP

1st repeat of the fiber shaft | 2nd repeat of the fiber shaft | fiber/fibritin junction

GVLSLRLSEPLVTSN | GMALKMGNGLSLDEA | GNLT**SQNV**YSRLNEI

7th coiled coil of the fibritin

DTKQTTVESDISAIKTSI GYPGNN SIITSVNTNTDNIASINLEL NQSGG

8th coiled coil of the fibritin | 9th coiled coil of the fibritin

IKQRLTVIETSI GSDDIPSS IKGQIKDNTTSIESLNGIV GENTSSG LRA

10th coiled coil of the fibritin | 11th coiled coil of the fibritin

NVSWLNQIV GTDSSGGQPSPPG SLLNRVSTIETSVSGLNNDVQNL

12th coiled coil of the fibritin

QVEI GNNSTG IKGQVVALNTLV NGTNPNGSTVEERG LTNSIKANET

13th coiled coil of the fibritin | trimerization domain of the fibritin

NIASVTQEVNTAKGNISSLQGDVQALQEA | GYIPEAPRDGQAYVRK

linker | 6His ligand

DGEWVLLSTFLSPA GGGGSGGGGSGGGGS RGSHHHHHH

(SEQ ID. NO. 13)

Fig. 2

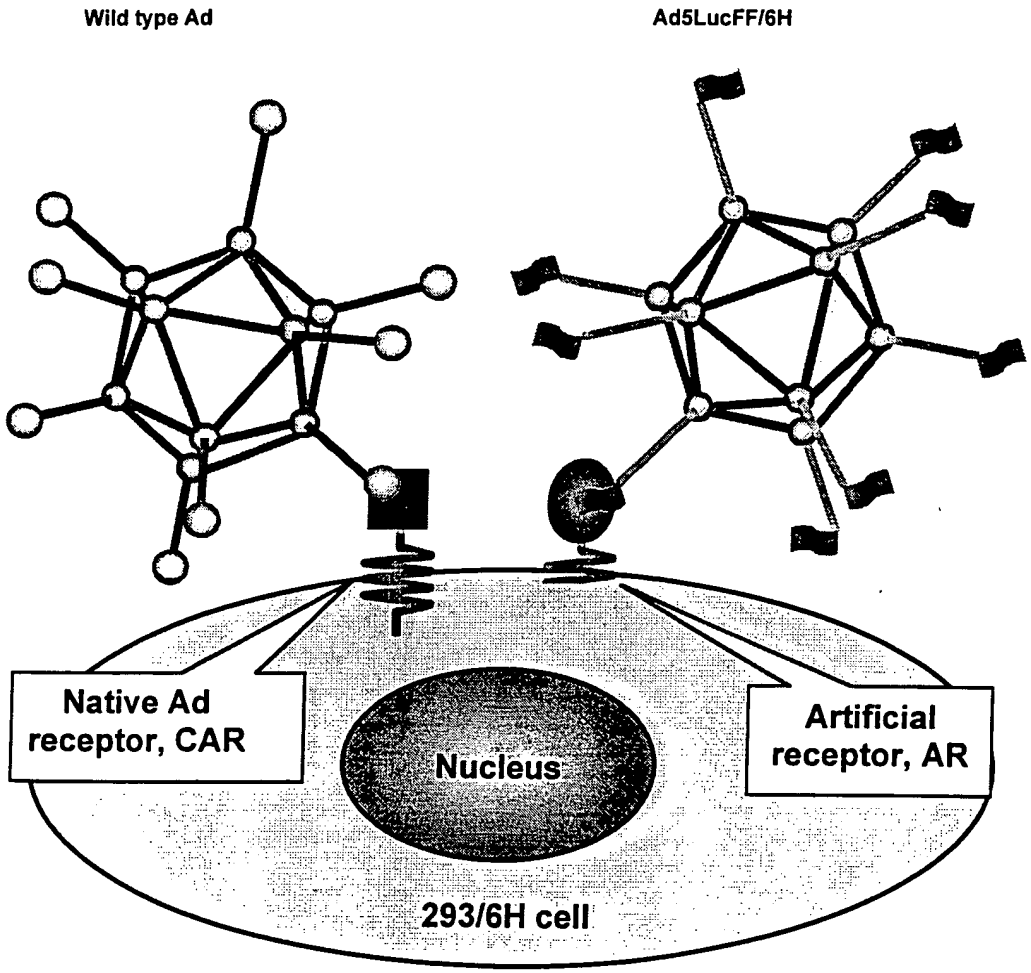

Wild type Ad
Ad5LucFF/6H
Native Ad receptor, CAR
Nucleus
Artificial receptor, AR
293/6H cell

Fig. 3

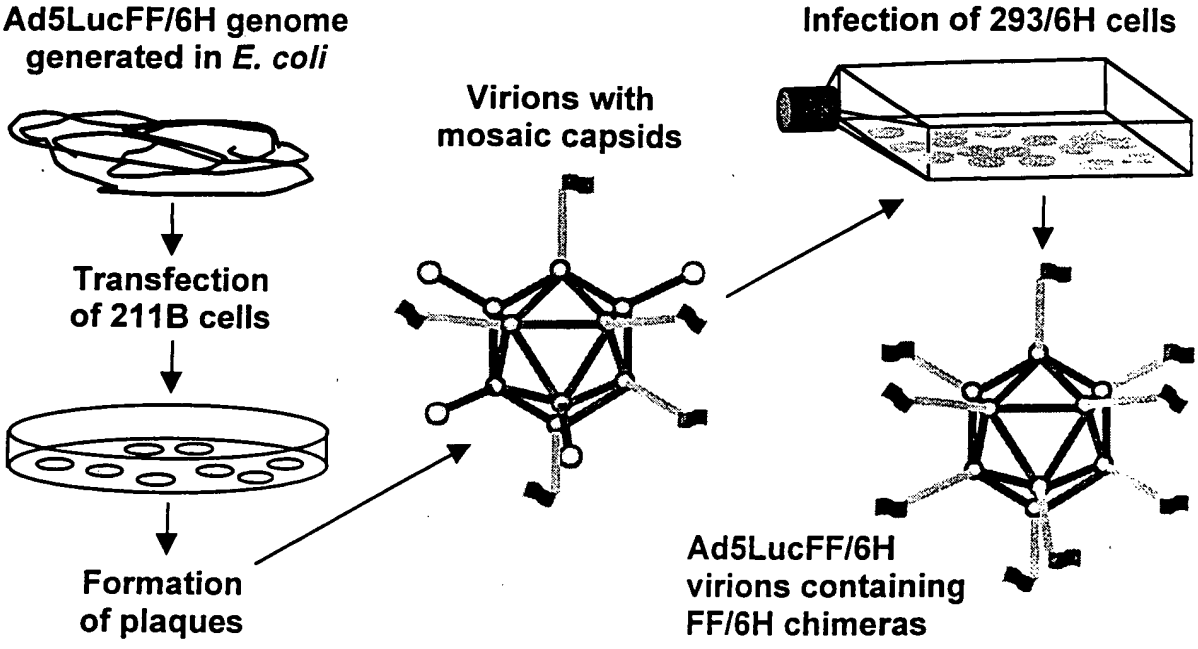

Ad5LucFF/6H genome
generated in E. coli
Transfection
of 211B cells
Formation
of plaques
Virions with
mosaic capsids
Infection of 293/6H cells
Ad5LucFF/6H
virions containing
FF/6H chimeras

Fig. 4

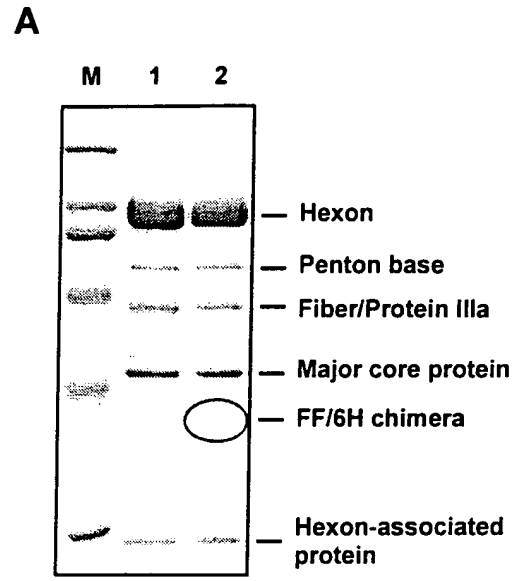

A
M
1
2
Hexon
Penton base
Fiber/Protein IIIa
Major core protein
FF/6H chimera
Hexon-associated protein
B
1 2 3 1 2 3 1 2 3
Anti-fiber tail mAb
Anti-5His mAb
Anti-fibritin polyclonals

Fig. 5

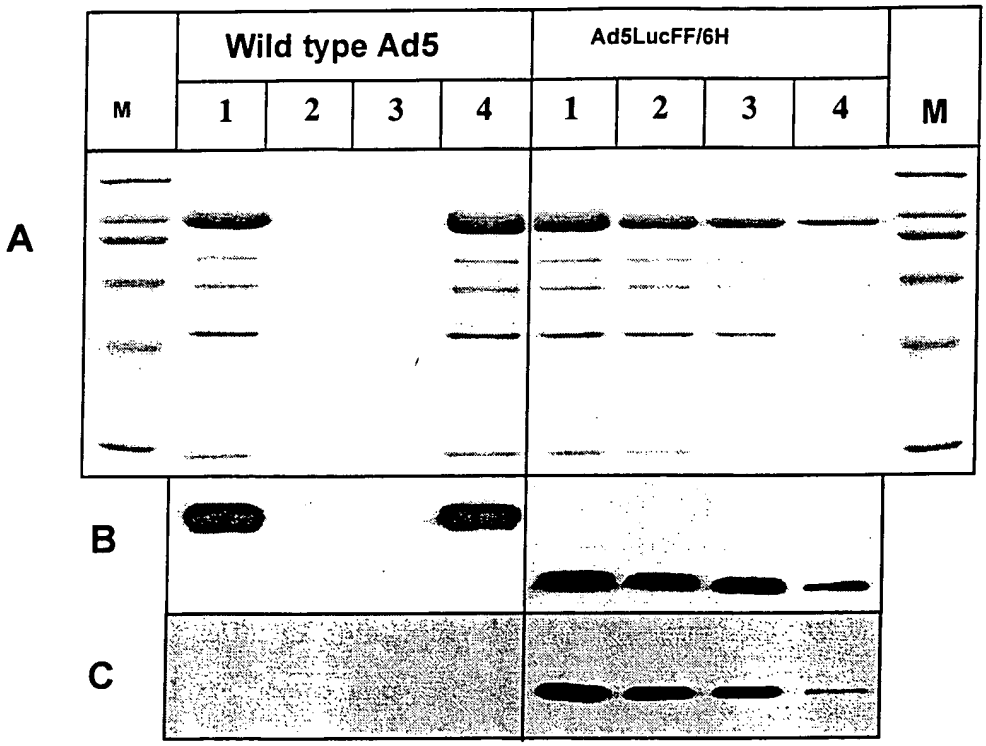


Fig. 6

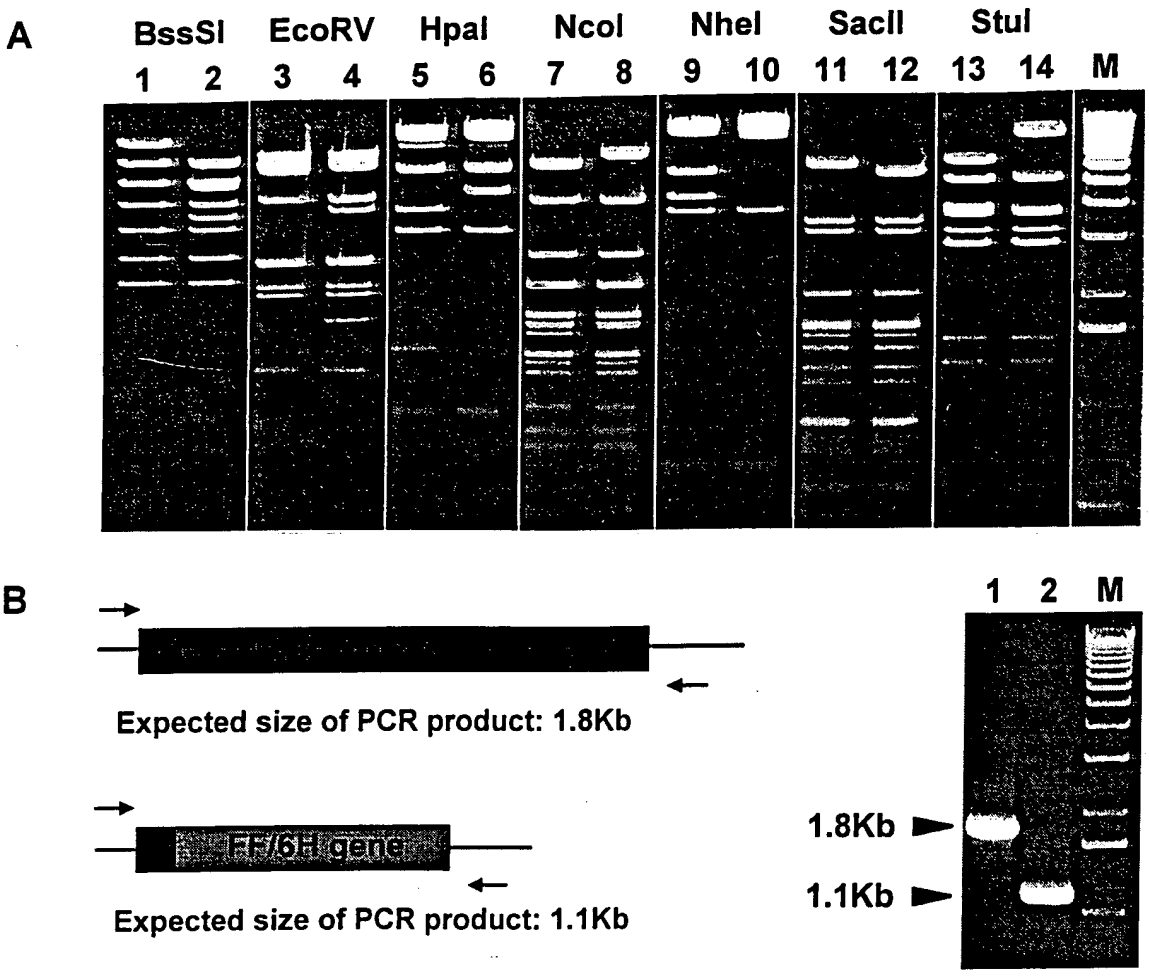

A
BssSI
EcoRV
HpaI
NcoI
NheI
SacII
StuI
1 2 3 4 5 6 7 8 9 10 11 12 13 14 M
B
Expected size of PCR product: 1.8Kb
FH/6H gene
Expected size of PCR product: 1.1Kb
1 2 M
1.8Kb
1.1Kb

Fig. 7

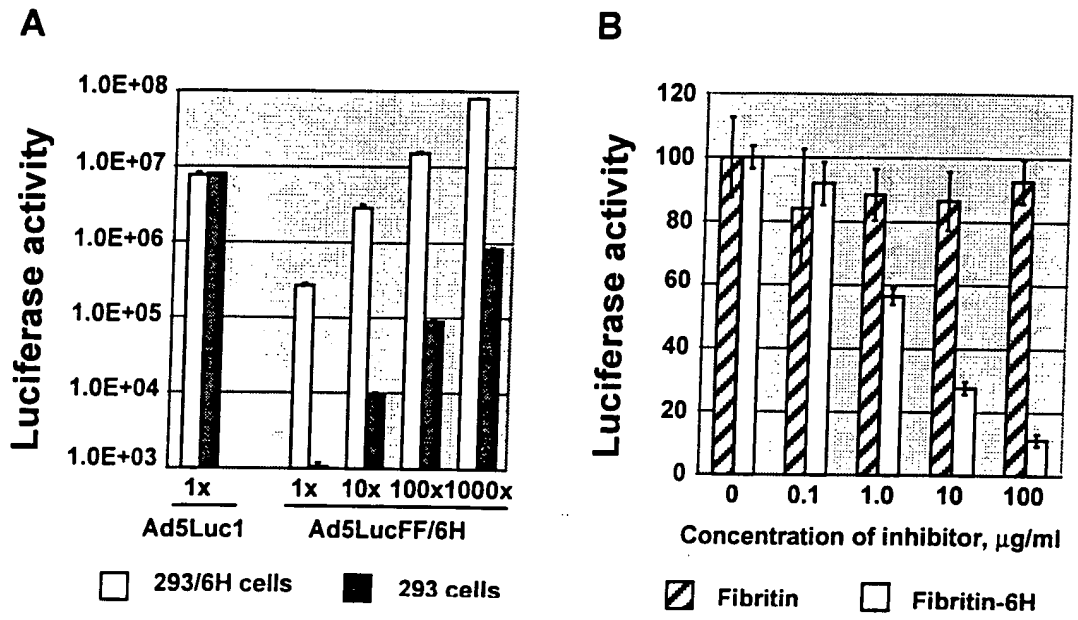
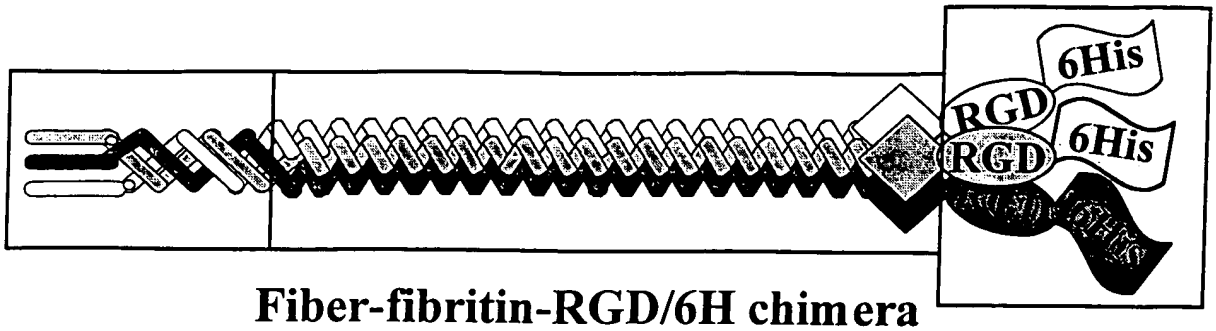
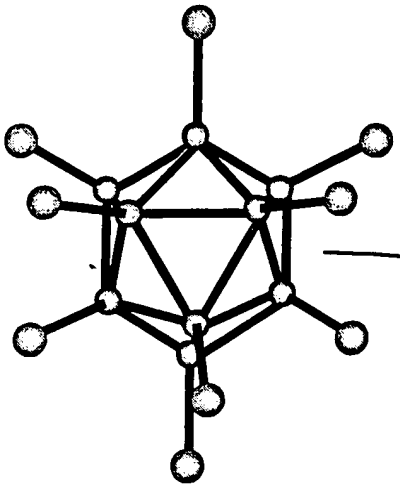

A
Luciferase activity
1.0E+08
1.0E+07
1.0E+06
1.0E+05
1.0E+04
1.0E+03
1x
1x 10x 100x1000x
Ad5Luc1
Ad5LucFF/6H
293/6H cells
293 cells
B
Luciferase activity
120
100
80
60
40
20
0
0 0.1 1.0 10 100
Concentration of inhibitor, µg/ml
Fibritin
Fibritin-6H

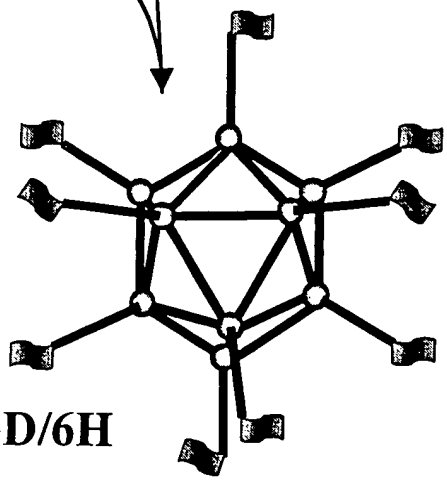
Fig. 8



Fiber-fibritin-RGD/6H chimera



Wild type Ad5



Ad5LucFF.RGD/6H

Fig. 9

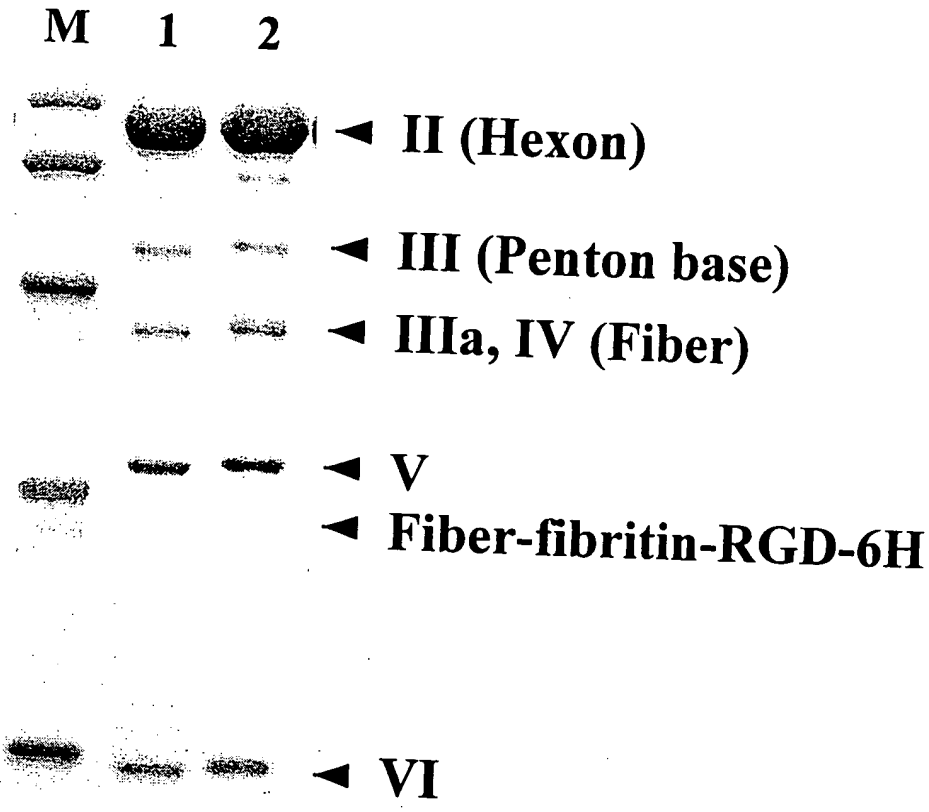

M
1
2
II (Hexon)
III (Penton base)
IIIa, IV (Fiber)
V
Fiber-fibritin-RGD-6H
VI

Fig. 10

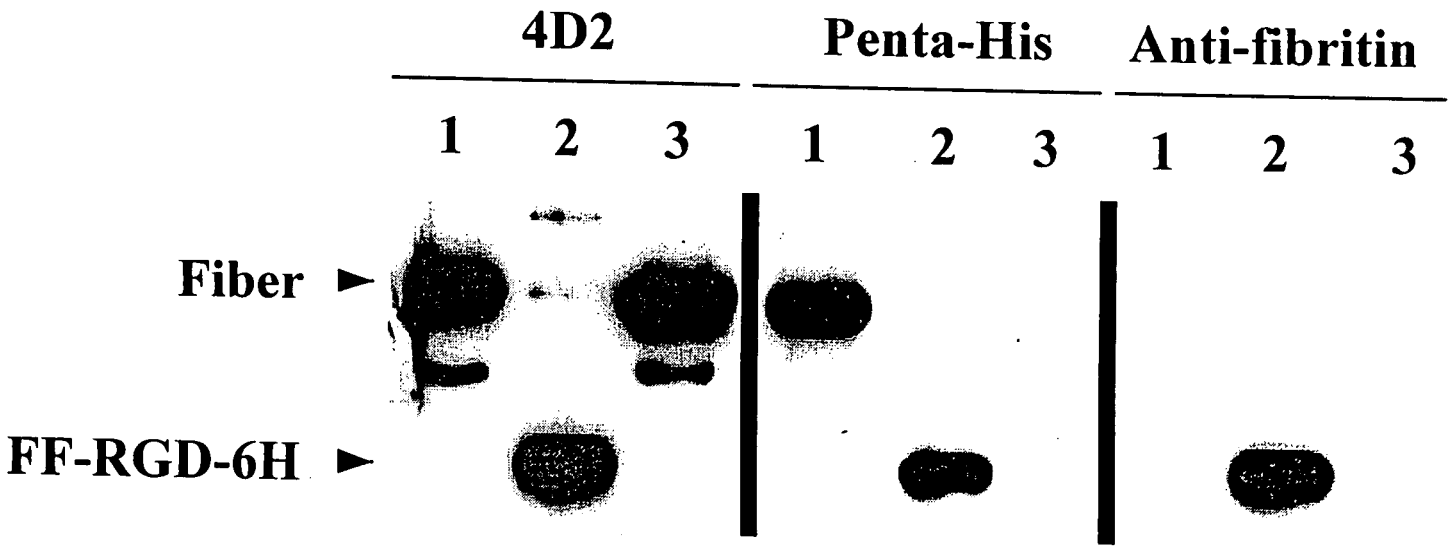


Fig. 11

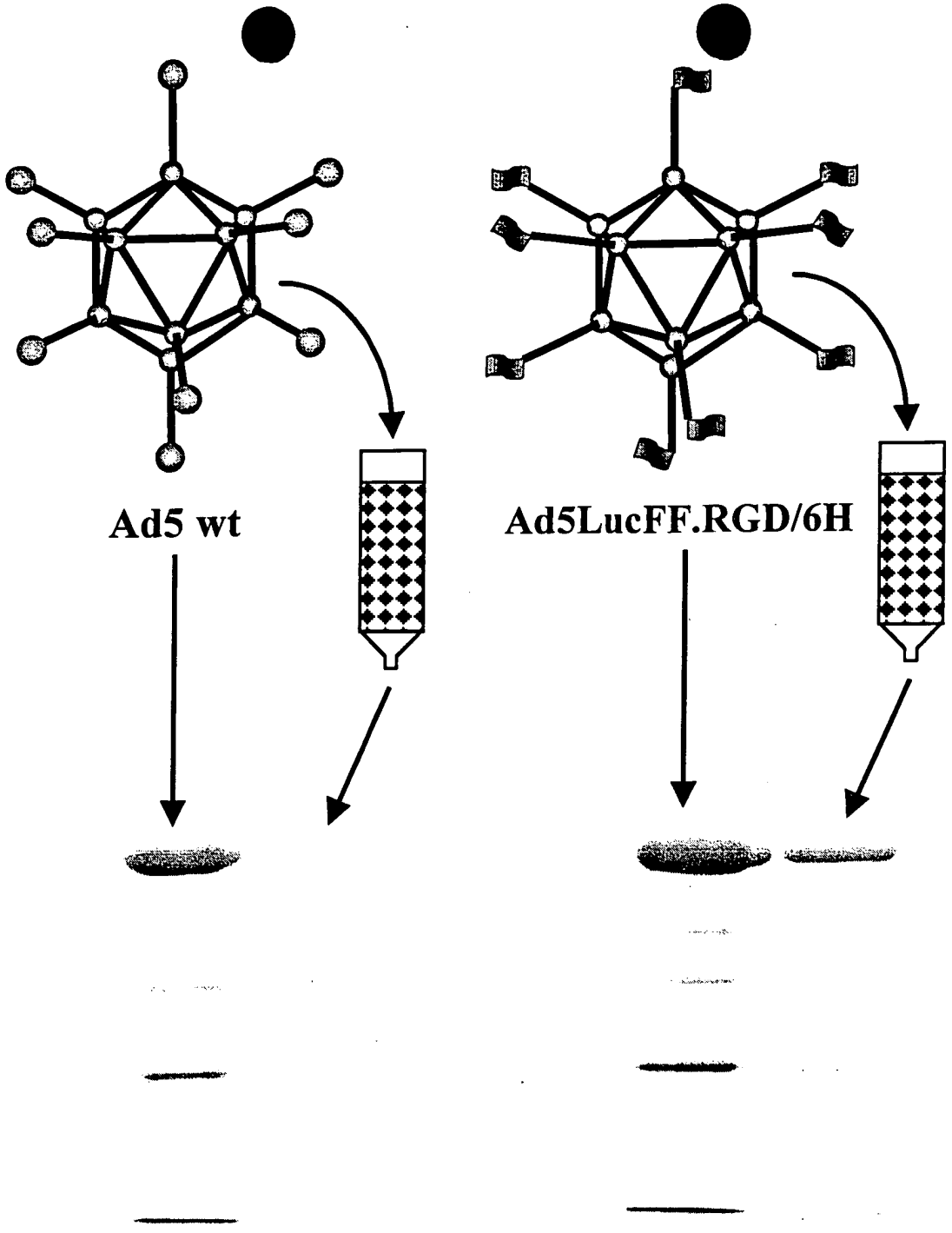


Fig. 12

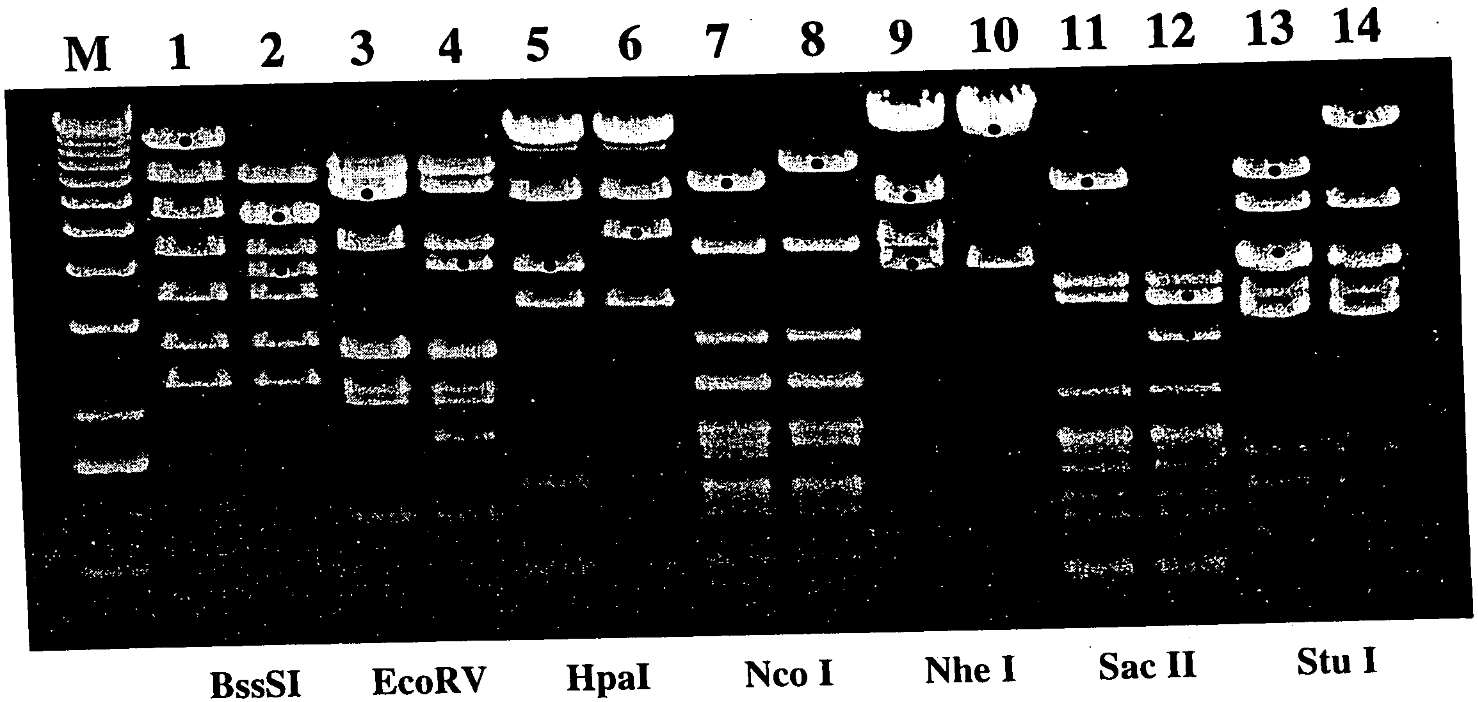

M 1 2 3 4 5 6 7 8 9 10 11 12 13 14
BssSI
EcoRV
HpaI
Nco I
Nhe I
Sac II
Stu I

Fig. 13

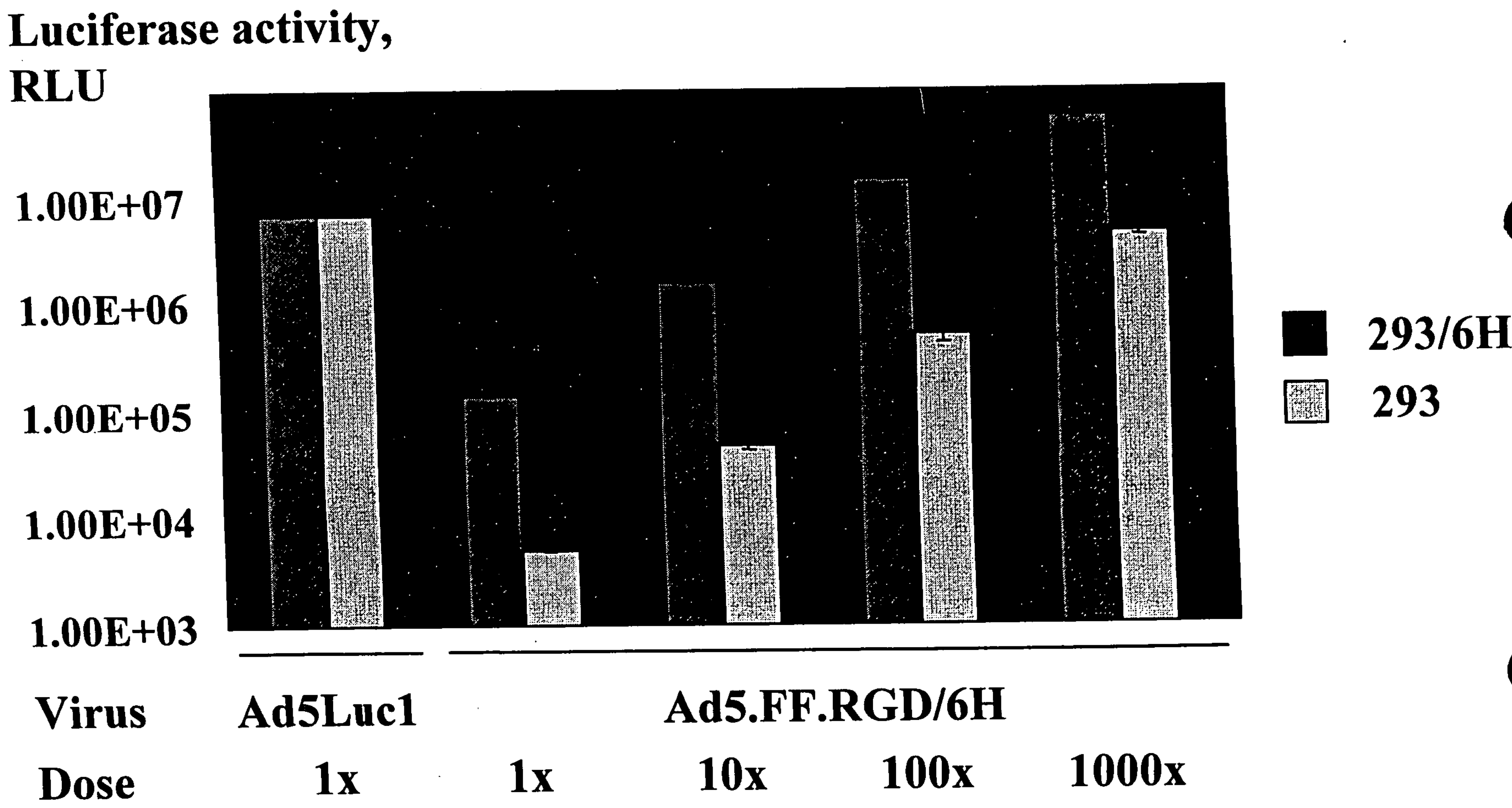


Fig. 14